

**Citation:**

Fraser AB, Grimes DA. Effect of lactation on maternal body weight: a systematic review. *Obstet Gynecol Surv.* 2003 Apr;58(4):265-9

**PubMed ID:** [12665706](#)

**Study Design:**

systematic review

**Class:**

M - [Click here](#) for explanation of classification scheme.

**Research Design and Implementation Rating:**

POSITIVE: See Research Design and Implementation Criteria Checklist below.

**Research Purpose:**

To systematically review literature on the impact of lactation on maternal weight after delivery.

**Inclusion Criteria:**

- weight loss specified as an outcome among breast-feeding women

**Exclusion Criteria:**

- unclear methodology
- reported results were general statements
- results attributable to lactation uninterpretable

**Description of Study Protocol:****Identification of studies**

- POPLINE (July 2002 database): "breast-fed/breast-feed/breast-feeding/lactation" & "maternal body weight/weight" & "human"
- PubMed search (1963-present) [((breastfeeding OR breast-feeding OR breast-feeding OR lactation) AND body weight) NOT (fetal weight OR birth weight OR infant)] AND human
- EMBASE (1973 to present): Mother OR Woman OR Women AND weight loss OR weight gain OR weight change AND Breast-feeding? OR Lactation AND human
- LILACS: Breast-feeding or Lactation and Weight

**Design:** systematic review

**Statistical Analysis :** Not conducted

## **Data Collection Summary:**

### **Data abstraction and synthesis:**

Data abstraction: study design, location, participant population, study period, breast-feeding definition, outcome variables, and quantifiable results

Appraisal of study quality: U.S. Preventive Services Task Force rating scale

- Level 1: evidence is obtained from at least one proper randomized, controlled trial
- Level II-1: evidence is obtained from well-designed controlled trials without randomization
- Level II-2: evidence is obtained from well-designed cohort or case-control analytic studies preferably from more than one center or research group
- Level II-3: evidence is obtained from multiple-time series, with or without intervention, or dramatic results in uncontrolled experiments
- Level III: evidence is opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

### **Dependent Variables**

- maternal body weight

### **Independent Variables**

- lactation

## **Description of Actual Data Sample:**

Number of studies identified:

- POPLINE: N=89
- PubMed: N=415
- EMBASE: N=133
- LILACS: N=44

Final number after duplicates eliminated and potentially relevant articles identified: N=42

Number included after exclusion applied: N=28

Types of studies:

- prospective cohort: N=15
- retrospective cohort: N=1
- cross-sectional: N=1
- case-series reports: N=11

**Location:** United States

## **Summary of Results:**

## Key Findings

- Seventeen studies qualified as Level II-2 and eleven studies qualified as Level-III studies.
- The methods used in all studies were highly variable, precluding aggregation of results. The studies differed in types of populations involved, comparisons made, definitions of exposure and outcome of interest. The definition of lactation was the largest discrepancy found among studies.

## Author Conclusion:

Level II-2 and level III studies provide insufficient evidence to support an effect of lactation on maternal body weight, a class "C" rating according to the U.S. Preventive Services Task Force.

## Reviewer Comments:

### ***Research Design and Implementation Criteria Checklist: Review Articles***

#### **Relevance Questions**

1.	Will the answer if true, have a direct bearing on the health of patients?	Yes
2.	Is the outcome or topic something that patients/clients/population groups would care about?	Yes
3.	Is the problem addressed in the review one that is relevant to nutrition or dietetics practice?	Yes
4.	Will the information, if true, require a change in practice?	No

#### **Validity Questions**

1.	Was the question for the review clearly focused and appropriate?	Yes
2.	Was the search strategy used to locate relevant studies comprehensive? Were the databases searched and the search terms used described?	Yes
3.	Were explicit methods used to select studies to include in the review? Were inclusion/exclusion criteria specified and appropriate? Were selection methods unbiased?	Yes
4.	Was there an appraisal of the quality and validity of studies included in the review? Were appraisal methods specified, appropriate, and reproducible?	Yes
5.	Were specific treatments/interventions/exposures described? Were treatments similar enough to be combined?	Yes
6.	Was the outcome of interest clearly indicated? Were other potential harms and benefits considered?	Yes

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|-----|--|-----|
| 7.  | Were processes for data abstraction, synthesis, and analysis described? Were they applied consistently across studies and groups? Was there appropriate use of qualitative and/or quantitative synthesis? Was variation in findings among studies analyzed? Were heterogeneity issued considered? If data from studies were aggregated for meta-analysis, was the procedure described? | Yes |
| 8.  | Are the results clearly presented in narrative and/or quantitative terms? If summary statistics are used, are levels of significance and/or confidence intervals included?   | Yes |
| 9.  | Are conclusions supported by results with biases and limitations taken into consideration? Are limitations of the review identified and discussed?   | Yes |
| 10. | Was bias due to the review's funding or sponsorship unlikely?  | Yes |

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